REMARKS

Claims 1-17 are pending and stand ready for further action on the merits.

Support for the amendment to claim 14 can be found in original claim 9.

No new matter has been added by way of the above-amendment. The above-amendment to the claims does not narrow the scope of the invention and/or has not been made for the sake of patentability.

Prior Art Based Rejections

Claims 1-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirose et al. (EP 1277594 or WO 01/83234). Applicants respectfully traverse the rejection.

Advantages of the Present Invention:

The present invention relates to a photosensitive resin composition for lithographic printing plate and a printing original plate utilizing a fountain solution. The inventive photosensitive resin composition for a lithographic printing plate comprises not less than 10 % by weight and not more than 90 % by weight of a hydrophilic polymer having at least a hydrophilic group, based on the amount of the photosensitive resin composition, and not less than 0.5 % by weight and not more than 20 % by weight, based on the amount of the hydrophilic polymer, of a compound that inhibits hydrogen bonding (hereinafter the "**Inhibiting Compound**") within the molecule and/or between the molecules of the hydrophilic polymer.

The advantage of a lithographic printing plate or a lithographic printing original plate containing the inventive photosensitive resin composition is that it is sensitive to light in the near infrared region, and can be handled even in a bright room. Also,

drawing can directly be made with a laser beam, and there is no need for development and wiping-off procedures.

Hirose et al.

Hirose et al. is also assigned to Mitsui Chemicals, Inc. The field of the invention of Hirose et al. is described in the abstract as follows:

> A lithographic printing original plate, a lithographic printing plate using the lithographic printing original plate and a process for producing the lithographic printing plate are disclosed. The lithographic printing original plate has, on a substrate, a photosensitive layer made of a crosslinked polymer comprising a hydrophilic polymer, a crosslinking agent and a light absorbing compound or comprising a hydrophilic polymer, a crosslinking agent, a light absorbing compound and a hydrophobic polymer, and has properties that the photosensitive layer is changed from ink-repellent to ink-receptive by irradiation with a light.

It is Applicants' position that the presently claimed invention is patentable over Hirose et al, since Hirose et al. fail to teach or fairly suggest the *advantages* of having 0.5-20 % by weight of the Inhibiting Compound, as presently claimed.

In the outstanding Office Action, the Examiner has taken the position that the compound of N,N-dimethyl(methyl)methacrylamide[1] of Hirose et al. is essentially equivalent to the Inhibiting Compound of the present invention. However, the Examiner will note that the reference to Hirose et al. is silent with respect to the range of concentration for this compound in the hydrophilic polymer. Accordingly, for guidance Applicants look to the examples of Hirose et al. In Example 10, equal parts of dimethyl acrylamide and acrylamide are used in the synthesis of a hydrophilic polymer. Accordingly, in Example 10, 45 grams of dimethyl acrylamide and 45 grams of

[1] Applicants assume that the Examiner is referring to the "unsubstituted or substituted (meth)acrylamide" as described in [0030] of Hirose et al. EP '594 and the acrylamide and dimethyl acrylamide as described in Examples 4 and 10 of Hirose et al. EP '594.

acrylamide are used. Since the total mass of the monomers used to make up the hydrophilic polymer is 150 grams, the amount of dimethylacrylamide can be calculated as 30% by weight (45 grams dimethylacrylamide/150 grams total monomers) and the amount of acrylamide can be calculated as 30% by weight (45 grams acrylamide/150 grams total monomers). Accordingly, the amount of each of methacrylamide and acrylamide used in the hydrophilic polymer is 30 %, which is higher than the inventive range of 0.5-20 % by weight.

It is the present inventors who have first identified the criticality of the range of 0.5-20 % by weight for the Inhibiting Compound in the hydrophilic polymer with respect to the required amount of fountain solution required for etching. This can be seen in the following table, which is reproduced from page 34 of the present specification:

Table

Examples	Hydrophilic Polymer Content	Inhibiting Compound	Inhibiting Compound Content (Weight %)	Amount of Fountain Solution (%)	Remarks
Example 1	52	AcrylylMorpholine	15	50	Added in the Resin Composition
Example 2	52	Urea	15	50	Added in the Resin Composition
Example 3	57	AcrylylMorpholine	5.3	50	Copolymerized with the Hydrophilic Polymer
Example 4	57	AcrylylMorpholine	5.3	50	Copolymerized with the Hydrophilic Polymer
Example 5	36	AcrylylMorpholine	5.3	50	Copolymerized with the Hydrophilic Polymer
Example 6	36	AcrylylMorpholine	1	50	Copolymerized with the Hydrophilic Polymer
Example 7	36	,N-dimethylmethacrylamid	5.3	50	Copolymerized with the Hydrophilic Polymer
Comparative Example 1	52	-	0	70	Not Added
Comparative Example 2	49	Urea	23	(Broken Off)	Added in the Resin Composition
Comparative Example 3	57	AcrylylMorpholine	0.4	70	Copolymerized with the Hydrophilic Polymer
Comparative Example 4	57	AcrylylMorpholine	21	75	Copolymerized with the Hydrophilic Polymer

As can be seen in the data in the above-table, the concentration of the Inhibiting Compound has a marked effect on the amount of fountain solution required for etching.

A difference between Inventive Examples 3 and 4 and Comparative Examples 3 and 4 is that the Inhibiting Compound (acryloyl morpholine) in Inventive Examples 3 and 4 is used in the range of 0.5-20 % by weight (as presently claimed) whereas the Inhibiting Compound used in Comparative Examples 3 and 4 is used just outside the inventive range (i.e., 0.4wt% and 21wt%, respectively). The amount of fountain solution required after etching increased at least 40% [40%=(70-50)/50x100] in view of the concentration of the Inhibiting Compound in the hydrophilic polymer.

In addition, a difference between Inventive Examples 1 and 2 and Comparative Example 2 is that the Inhibiting Compound (acryloyl morpholine in Inventive Example 1 and urea in Inventive Example 2 and Comparative Example 2) in Inventive Examples 1 and 2 is used in the range of 0.5-20 % by weight (as presently claimed) whereas the Inhibiting Compound used in Comparative Example 2 is used just outside the inventive range (i.e., 23wt%). In this situation, the amount of fountain solution could not be quantified, since the resin broke off.

Inventive Examples 5-7 are relevant to show that the criticality of the concentration range of the Inhibiting Compound is also seen in resins incorporating less amount of hydrophilic polymer than is used in Inventive Examples 3 and 4.

In view of the fact that Hirose et al. fail to teach or fairly suggest such an improvement to the processing capability of the photosensitive resin composition using 0.5-20 % by weight (as presently claimed) of the Inhibiting Compound, the improvement would be **unexpected**, and as such, a *prima facie* case of obviousness cannot be said to exist based on Hirose et al. Accordingly, withdrawal of the rejection is respectfully requested.

Conclusion

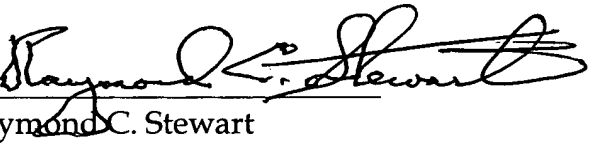
In view of the above amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. A Notice to such effect is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Garth M. Dahlen, Ph.D., Esq.** (Reg. No. 43,575) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: June 28, 2005

Respectfully submitted,

By 

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